

REMARKS

Upon entry of the instant amendment, claims 1-9 are pending. Claim 1 has been amended . It is respectfully submitted that upon entry of the amendment and consideration of the remarks below that the application is in condition for allowance.

CLAIM REJECTIONS – 35 U.S.C. § 102

Claims 1, 2 and 4 have been rejected under 35 USC § 102(b) as being anticipated by Morioka et al US Patent No. 5,831,412 (“the Morioka et al patent”). In order for there to be anticipation, each and every one of the elements of the claim. It is respectfully submitted that the claims recite subject matter not disclosed or suggested by the Morioka et al patent. For example, the claims recite that the battery charge indication signals is generated ***solely as a function of said charging current based upon a comparison of the charging current with predetermined values.***

It is respectfully submitted that the “full charge detector 73” disclosed in the Morioka et al patent is more complicated than the battery charge indicator recited in the claims at issue. In particular, the details of the charge detector circuit 73 requires a voltage detector and thus does not disclose or suggest a circuit that can generate a signal representative of the charge of a lithium ion battery based solely on the charging current being supplied to the battery. The Examiner’s attention is directed to Col. 5, lines 39-54 emphasis added), repeated below for the convenience of the Examiner:

*“Further, a charge controller for a secondary battery to be charged at a constant voltage detects that the secondary battery is fully charged, if the current measured by the current measuring means is equal to or lower than a predetermined value **when the constant-voltage charge state detecting means detects that the secondary battery assumes the constant-voltage charge state.***

Further, a charge controller for a secondary battery to be charged at a constant voltage

detects that the secondary battery is fully charged, if the ratio of the current measured by the current measuring means to the current output by the secondary battery undergoing constant-current charge is equal to or less than a predetermined ratio when the constant-voltage charge state detecting means detects that the secondary battery assumes the constant-voltage charge state. “

Thus , it should be clear that the battery indicator circuit in accordance with the present invention is not anticipated by the Morioka et al patent. Moreover, it is respectfully submitted that the Morioka et al patent actually teaches away from the invention by requiring a voltage detector to detect when the battery charger is in the constant voltage charging state. The need for a voltage detector increases the complexity and the cost of cell phone battery charger that is configured, for example, to be plugged into a vehicle cigarette lighter receptacle. The present invention provides a relatively simple indicator for use in such an application. Accordingly, the Examiner is thus respectfully requested to reconsider and withdraw the rejection of these claims.

CLAIM REJECTIONS – 35 U.S.C. § 103

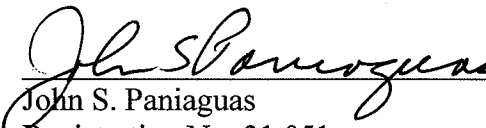
Claims 3, 5, 7 and 8 have been rejected under rejected under 35 U.S.C. § 103(a) as being unpatentable over the Morioka et al patent further in view of Kaite et al US Patent No. 5,589,755 (the Kaite et al patent”). It is respectfully submitted that the claims, as amended, recite subject matter not disclosed or suggested by either the Morioka et al patent or the Kaite et al patent, either singly or in combination. In particular, Claims 3, 5, 7 and 8 are dependent upon Claim 1. The Morioka et al patent has been discussed above. The Kaite et al patent does not disclose or suggest a battery charge indicator as indicated in the claims at issue. For these reasons and the above reasons, the Examiner is kindly requested to reconsider and withdraw the rejection of these claims.

Claim 8 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over the the Morioka et al patent in view of the Kaite et al patent further in view of Matsunaga et al US Patent No. 6,771,043 (“the Matsunaga et al patent. It is respectfully submitted that the claim 8,

which depends on Claim 1, recite subject matter, in combination, not disclosed or suggested by either the Morioka et al patent , the Kaite et al patent, or the Matsunaga et al patent, either singly or in combination. In particular, the Morioka et al patent and the Kaite et al patent have been discussed above. It is respectfully submitted that the Matsunaga et al patent does not disclose or suggest a battery charge indicator as indicated in the claims at issue. For these reasons and the above reasons, the Examiner is kindly requested to reconsider and withdraw the rejection of these claims.

Respectfully submitted,

KATTEN MUCHIN ROSENMAN LLP

By: 
John S. Paniaguas
Registration No. 31,051
Attorney for Applicant(s)

Katten Muchin Rosenman LLP
2900 K Street NW
Suite 200
Washington, DC 20007-5118
Telephone: (312) 902-5200
Facsimile: (312) 902-1061
Customer No.: 27160